# **User Guide**

# RT-N56U

**Extreme Performance in Style** 

# **Dual-band Wireless-N Gigabit Router**

The ultra-thin and stylish RT-N56U features a 2.4GHz and 5GHz dual bands for an unmatched concurrent wireless HD streaming; built-in ASUS Download Master that support HTTP, FTP, and BT protocols for uninterrupted download tasks; SMB server, UPnP AV server, and FTP server for 24/7 file sharing; a capability to handle 300,000 sessions; and the ASUS Green Network Technology, which provides up to 70% power-saving solution.





E6486 Fourth Edition April 2011

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# A quick look

# **Package contents**

**▼** RT-N56U Wireless Router

✓ Support CD (Manual, utility software) ✓ Warranty card

✓ Network cable (RJ-45)

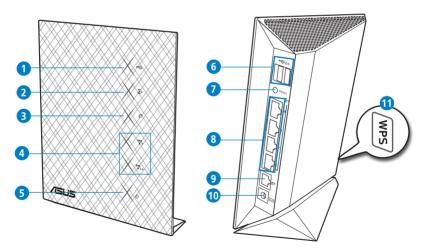
✓ Ouick Start Guide



#### NOTES:

- If any of the items is damaged or missing, contact ASUS for technical inquiries and support, Refer to the ASUS Support Hotline list at the back of this user manual
- Keep the original packaging material in case you would need future warranty services such as repair or replacement.

## Your wireless router





#### **USB LED**

Off: No power or no physical connection. **On**: Has physical connection to USB devices. LAN LED

Off: No power or no physical connection.

**On**: Has physical connection to a local area network (LAN).

WAN LED

Off: No power or no physical connection.

**On**: Has physical connection to a wide area network (WAN).

4 5GHz LED / 2.4GHz LED

**Off**: No 5GHz or 2.4GHz signal. **On**: Wireless system is ready.

**Flashing**: Transmitting or receiving data via wireless connection.

Power LED

Off: No power.
On: Device is readv.

Flashing slow: Rescue mode Flashing quick: WPS is processing.

6 USB 2.0 ports

Insert USB 2.0 devices such as USB hard disks or USB flash drives into these ports. Insert your iPad's USB cable into one of these ports to charge your iPad.

Reset button

This button resets or restores the system to its factory default settings.

8 LAN 1 ~ 4 ports

Connect network cables into these ports to establish LAN connection.

**Yellow LED**: 1000Mbps connection. **Green LED**: 10Mbps/100Mbps connection.

Flashing: Transmitting or receiving data via wired connection.

WAN (Internet) port

Connect a network cable into this port to establish WAN connection.



**Yellow LED**: 1000Mbps connection. **Green LED**: 10Mbps/100Mbps connection.

**Flashing**: Transmitting or receiving data via wired connection.

10 Power (DC-In) port

Insert the bundled AC adapter into this port and connect your router to a power source.

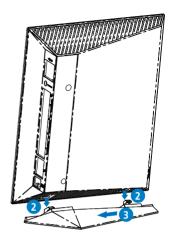
WPS button

This button launches the WPS Wizard.

# **Mounting placement**

# To mount the wireless router into its stand:

- 1. Locate the two mounting holes at the bottom of the wireless router.
- 2. Latch the stand's two mounting hooks to the wireless router's mounting holes.
- 3. Slide the wireless router to direction of the arrow to secure it to its stand.





#### NOTES

• Use only the adapter that came with your package. Using other adapters may damage the device.

## • Specifications:

DC Power adapter	DC Input: +19V with max 1.58A current; +12V with max 2A current		
Operating Temperature	0~40°C	Storage	0~70°C
Operating Humidity	50~90%	Storage	20~90%

# 2 Creating your network

## **Positioning your router**

For the best wireless signal transmission between the wireless router and the network devices connected to it, ensure that you:

- Place the wireless router in a centralized area for a maximum wireless coverage for the network devices.
- Keep the device away from metal obstructions and away from direct sunlight.
- Keep the device away from 802.11g or 20MHz only Wi-Fi devices, 2.4GHz computer peripherals, Bluetooth devices, cordless phones, transformers, heavy-duty motors, fluorescent lights, microwave ovens, refrigerators, and other industrial equipment to prevent signal interference or loss.
- For the best front-to-rear coverage, place the wireless router in an upright position.
- For the best up-and-down coverage, place the wireless router in an inclined position.
- Always update to the latest firmware. Visit the ASUS website at <a href="http://www.asus.com">http://www.asus.com</a> to get the latest firmware updates.



# What you need

To set up your network, you need one or two computers that meet the following system requirements:

- Ethernet RJ-45 (LAN) port (10Base-T/100Base-TX/ 1000BaseTX)
- IEEE 802.11a/b/g/n wireless capability
- An installed TCP/IP service
- Web browser such as Internet Explorer, Firefox, Safari, or Google Chrome



#### NOTES:

- If your computer does not have built-in wireless capabilities, you may install an IEEE 802.11a/b/g/n WLAN adapter to your computer to connect to the network.
- With its dual band technology, your wireless router supports 2.4GHz and 5GHz wireless signals simultaneously. This allows you to do Internet-related activities such as Internet surfing or reading/writing e-mail messages using the 2.4GHz band while simultaneously streaming high-definition audio/ video files such as movies or music using the 5GHz band.
- If you are using only one computer with single band IEEE 802.11b/g/n WLAN adapter, you will only be able to use the 2.4GHz band.
- If you are using only one computer with dual band IEEE 802.11a/b/g/n WLAN adapter, you will be able to use the 2.4GHz or 5GHz band.
- If you are using two computers with both IEEE 802.11a/b/g/n WLAN adapters, you will be able to use both 2.4GHz and 5GHz bands simultaneously.
- The Ethernet RJ-45 cables that will be used to connect the network devices should not exceed 100 meters.

# Setting up your wireless router



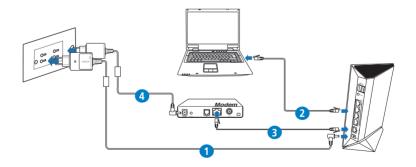
#### **IMPORTANT!**

- Use wired connection in setting up your wireless router to avoid possible setup problems due to wireless uncertainty.
- Before setting up your ASUS wireless router, do the following:
  - If you are replacing an existing router, disconnect it from your network.
  - Disconnect the cables/wires from your existing modem setup. If your modem has a backup battery, remove it as well.
  - Reboot your computer (recommended).

### Wired connection



**NOTE**: Your wireless router has an integrated auto-crossover function, so use either straight-through or crossover cable for wired connection



### To set up your wireless router via wired connection:

1. Insert your wireless router's AC adapter to the DC-In port and plug it to a power outlet.

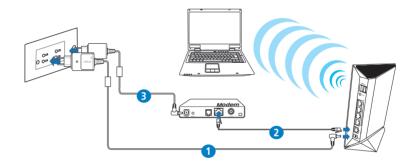
2. Using the bundled network cable, connect your computer to your wireless router's LAN port.



**IMPORTANT!** Ensure that the LAN LED is blinking.

- 3 Using another network cable, connect your modem to your wireless router's WAN port.
- 4. Insert your modem's AC adapter to the DC-In port and plug it to a power outlet.

#### Wireless connection



### To set up your wireless router via wired connection:

- 1. Insert your wireless router's AC adapter to the DC-In port and plug it to a power outlet.
- 2 Using the bundled network cable, connect your modem to your wireless router's WAN port.
- 3. Insert your modem's AC adapter to the DC-ln port and plug it to a power outlet.
- 4. Install an IEEE 802.11a/b/g/n WLAN adapter on your computer.



#### NOTES:

- For details on connecting to a wireless network, refer to the WLAN adapter's user manual.
- To set up the security settings for your network, refer to the section **Setting up the wireless security settings** in this user manual.

# Before you proceed



**NOTE**: Before configuring your wireless router, do the steps described in this section for your host computer and network clients.

### A. Disable the proxy server, if enabled.

#### Windows® 7

- Click Start > Internet Explorer to launch the browser.
- Click Tools > Internet options > Connections tab > LAN settings.

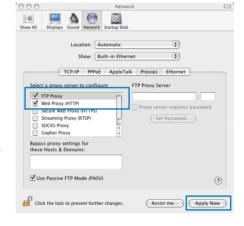


- 3. From the Local Area Network (LAN) Settings screen, untick **Use a proxy server for your** LAN.
- 4. Click **OK** when done.



#### **MAC OS**

- From your Safari browser, click Safari > Preferences > Advanced > Change Settings...
- From the Network screen, deselect FTP Proxy and Web Proxy (HTTP).
- 3. Cllick **Apply Now** when done.



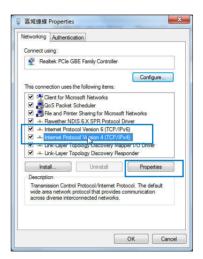


**NOTE:** Refer to your browser's help feature for details on disabling the proxy server.

B. Set the TCP/IP settings to automatically obtain an IP address.

#### Windows® 7

- Click Start > Control Panel
   Network and Internet
   Network and Sharing
   Center > Manage network
   connections.
- Select Internet Protocol Version 4 (TCP/IPv4) or Internet Protocol Version 6 (TCP/IPv6), then click Properties.



3. To obtain the iPv4 IP settings automatically, tick **Obtain an IP address** automatically.

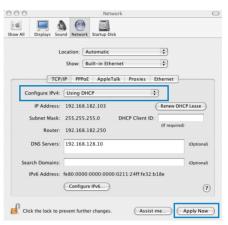
To obtain the iPv6 IP settings automatically, tick **Obtain an IPv6 address automatically**.

4. Click **OK** when done.



#### **MAC OS**

- Click the Apple icon solution located on the top left of your screen.
- 2. Click System
  Preferences > Network
  > Configure...
- From the TCP/IP tab, select Using DHCP in the Configure IPv4 dropdown list.
- 4. Cllick **Apply Now** when done





**NOTE:** Refer to your operating system's help and support feature for details on configuring your computer's TCP/IP settings.

## C. Disable the dial-up connection, if enabled.

#### Windows® 7

- Click Start > Internet Explorer to launch the browser.
- 2. Click Tools > Internet options > Connections tab.
- 3. Tick **Never dial a connection**.
- 4. Click **OK** when done.





**NOTE:** Refer to your browser's help feature for details on disabling the dial-up connection.

# 3 Configuring via the web GUI

# Logging into the web GUI

Your ASUS Wireless Router comes with an intuitive web graphics user interface (GUI) that allows you to easily configure its various features through a web browser such as Internet Explorer, Firefox, Safari, or Google Chrome.

### To log into the web GUI:

- 1. On your web browser such as Internet Explorer, Firefox, Safari, or Google Chrome, manually key in the wireless router's default IP address: **192.168.1.1**
- 2. On the login page, key in the default user name (**admin**) and password (**admin**).





#### NOTES:

- For your network clients, ensure that you set the TCP/IP settings to obtain IP addresses automatically, disable the proxy server settings, disable the dial-up settings, and cancel the dial-up connection.
- For more details, refer to the section **Before you proceed** in this user manual.

3. The wireless router's web GUI launches. Use the web GUI to configure various wireless settings.



# **Setting up the Internet connection**



**NOTE**: When setting the Internet connection **for the first time**, press the **Reset button** on your wireless router to reset it to its factory default settings.

## **Quick Internet Setup (QIS) with auto-detection**

The Quick Internet Setup (QIS) function guides you in quickly setting up your Internet connection.

### To use QIS with auto-detection:

1. Launch a web browser such as Internet Explorer, Firefox, Safari, or Google Chrome.



2. The wireless router automatically detects if your ISP connection type is **Dynamic IP**, **PPPoE**, **PPTP**, **L2TP**, and **Static IP**. Key in the necessary information for your ISP connection type.



**IMPORTANT!** Obtain the necessary information about your Internet connection type from your ISP.



#### NOTES:

- The auto-detection of your ISP connection type takes place when you configure the wireless router for the first time or when your wireless router is reset to its default settings.
- If QIS failed to detect your Internet connection type, click
   Skip to manual setting (see the screen capture in step 1) and manually configure your connection settings.
- If QIS failed to launch automatically, manually launch your wireless router's web GUI to access the QIS page. To do this, follow these steps:
  - On your web browser, key in <a href="http://192.168.1.1">http://192.168.1.1</a>
  - On the login page, key in the default username **admin** and password **admin**.
  - Click GO in the Quick Internet Setup field under Internet status in the Network Map page.
- 3. Internet connection setup is done.



Select your next preferred task from any of these options:

- Going to Internet: Click to start surfing the Internet or do Internet-related activities such as chat, or read/ write e-mail messages.
- **2. Advanced Setting page**: Click to go to the wireless router's Advanced Setting page and configure more advanced wireless settings.
- **3.** Add to Favorites: Click to go add the router's web interface to your Favorites.

### **Using Wi-Fi Protected Setup (WPS)**

WPS (Wi-Fi Protected Setup) allows you to set up a secure and protected wireless network easily.



#### NOTES:

- Ensure that you use a wireless LAN adapter with WPS function on your network clients.
- Windows® operating systems and wireless LAN cards/ adapters that support WPS:

OS Support	Wireless Adapter Support
Windows Vista 32/64 Windows 7 32/64 Windows 2008	ASUS/Intel wireless LAN card (except WL-167g and WL-160W) ASUS WL-167g v2 driver v.3.0.6.0 or later ASUS WL-160N/WL-130N driver v.2.0.0.0 or later
Windows XP SP2/SP3 Windows 2003 32-bit SP2/SP3	ASUS/Intel wireless LAN card (not support WL-167g and WL-160W) ASUS WL-167g v2 driver v.1.2.2.0 or later ASUS WL-160N/WL-130N driver v.1.0.4.0 or later
Windows XP/2003 64-bit Windows XP 32-bit SP1/ XP 32-bit Windows 2003 32-bit SP1 / 2003 32-bit Windows 2000 SP4	ASUS wireless LAN card with ASUS WLAN Utility ASUS WL-167g v2 driver v.1.2.2.0 or later ASUS WL-160N/WL-130N driver v.1.0.4.0 or later

#### To use WPS:

1. In the **WPS** field, click the red button to launch the WPS Wizard.





**NOTE**: You may also press the WPS button on your wireless router to launch the WPS Wizard.

2. Follow the onscreen instructions to complete the wireless network setup.



**IMPORTANT!** Obtain the necessary information about your Internet connection type from your ISP.

# Setting up the wireless security settings

To protect your wireless network from unauthorized access, you need to configure its security settings.

### To set up the wireless security settings:

- 1. Key in **192.168.1.1** on your web browser.
- 2. On the login screen, key in the default user name (**admin**) and password (**admin**), then click **OK**. The wireless router's web GUI launches.
- 3. On the **Network Map** screen, select the **System status** icon to display the wireless security settings such as SSID, security level, and encryption settings.



**NOTE**: You can set up different wireless security settings for 2.4GHz and 5GHz bands.

## 2.4GHz security settings



### **5GHz security settings**



- 4. On the **Wireless name (SSID)** field, key in a unique name for your wireless network.
- 5. From the **Security Level** dropdown list, select the encryption method for your wireless network.



**IMPORTANT!** The IEEE 802.11n standard prohibits using High Throughput with WEP or WPA-TKIP as the unicast cipher. If you use these encryption methods, your data rate will drop to IEEE 802.11g 54Mbps connection.

- 6. Key in your security passkey.
- 7. Click **Apply** when done.

# Managing your network clients

### To manage your network clients:

- 1. Launch the wireless router's web GUI.
- 2. On the **Network Map** screen, select the **Client Status** icon to display the information about your network clients.



3. In the **Priority** field under the Client List, you can set the priority packet for each client as **Normal**, **High**, or **Low**.



**NOTE**: You can also delete the priority settings from **Advanced Setting** > **WAN** > **QoS** tab.

4. To block a client's access to your network, select the client and click **Block**.

To restore a client's access to your network, select the client in the **Blocked client list** and click **Unblock**.



**NOTE**: You can also delete the MAC filter from **Advanced Setting** > **Firewall** > **MAC Filter** tab.

# **Monitoring your USB device**

The ASUS Wireless Router provides two USB 2.0 ports for connecting USB devices such as a USB storage device and USB printer, to allow you to monitor the working environment, share files, and printer with clients in your network.



**NOTE**: To use this feature, you need to plug a USB storage device, such as a USB hard disk or USB flash drive, to the USB 2.0 port on the rear panel of your wireless router. Ensure that the USB storage device is formatted and partitioned properly. Refer to the Plug-n-Share Disk Support List at

http://event.asus.com/networks/disksupport



**IMPORTANT!** You first need to create a user account to allow other network clients to access the USB device. For more details, refer to the section **Sharing files from a USB storage device** in this user manual.

### To monitor your USB device:

- 1. Launch the wireless router's web GUI.
- 2. On the **Network Map** screen, select the **USB Disk Status** icon to display the information about your USB device.



3. On the **UPnP Media Server** field, click **GO** to allow UPnP (Universal Plug and Play) devices such as PS3 to access the multimedia files in your USB disk.



**NOTE**: For more details, refer to the next section **Using** your router as a **UPnP Media Server** in this user manual.

4. On the **AiDisk Wizard** field, click **GO** to set up an FTP server for Internet file sharing.



#### NOTES:

- For more details, refer to the section **Using AiDisk for an FTP Server and Network Neighborhood setup** in this user manual.
- On USB External HDD/Flash disk:
  - The wireless router works with most USB HDDs/Flash disks (up to 2TB size) and supports read-write access for FAT16, FAT32, EXT2, EXT3, and NTFS.
  - To safely remove the USB disk, launch the web GUI (http://192.168.1.1), then in the Network Map page > External USB disk status > Safely Remove disk field, click Remove.
  - Incorrect removal of the USB disk may cause data corruption.

# Using your router as a UPnP Media Server

Your wireless router allows UPnP (Universal Plug and Play) multimedia devices, such as PS3 and XBox 360, to access multimedia files from the USB disk connected to your wireless router.



**NOTE**: Before using the UPnP Media Server function, install a wireless adapter on your UPnP device.

### To use your router as a UPnP Server:

- 1. Click **UPnP Media Server** from the navigation menu at the left side of your screen.
- 2. Select **Enabled**. Your wireless router is now ready to share the media files stored in the USB disk.





**NOTE**: For details on connecting a UPnP device to the wireless router and accessing the media files on the USB disk, refer to the UPnP device's user manual.



**IMPORTANT!** For details on sharing files/contents from a USB disk, refer to the section **Sharing files from a USB device** on this user manual.

# Using AiDisk for an FTP Server and Network Neighborhood setup

AiDisk allows you to set up an FTP server and share the content of a USB disk to the clients in your network.



**NOTE**: Before using AiDisk, ensure that you have inserted a USB disk into the USB port of your wireless router.

#### To use AiDisk:

- 1. Click **AiDisk** from the navigation menu at the left side of your screen.
- 2. From the Welcome to AiDisk wizard screen, click Go.



3. Select the access rights that you want to assign to the clients accessing your shared data.



- 4. To create your own domain for your FTP site via the ASUS DDNS services, select **I will use the service and accept the Terms of service** and key in your domain name.
- 5. Click **Next** to finish the setup.



- 5. When done, click **Finish**.
- 6. To access the FTP site that you created, launch a web browser or a third-party FTP client utility and key in the ftp link (ftp://<domain name>) you have previously created.



# **Managing EZQoS Bandwidth**

EzQoS Bandwidth Management allows you to set the bandwidth priority and manage the network traffic.

### To set up the bandwidth priority:

1. Click **EzQoS Bandwidth Management** from the navigation menu at the left side of your screen.





**NOTE**: Manually key in the uplink speed to prevent the router from detecting the wrong uplink speed from an unstable network.

2. Click each of these four applications to set the bandwidth priority:

lcon	Description
	Gaming Blaster The router handles gaming traffic at first priority.
	Internet Application The router handles the e-mail, web browsing and other Internet applications traffic at first priority.
	FTP The router handles at first priority the traffic of downloading/uploading data to/from the FTP server.
A.	Voip/Video Streaming The router handles the audio/video traffic at first priority.

3. Click **Save** to save the configuration settings.

# **Configuring the Advanced settings**

Advanced Setting allows you to configure the advanced features of your wireless router.



## **Setting up the DHCP Server**

You may enable the **DHCP Server** function in your wireless router so your network clients can automatically obtain IP addresses from your wireless router.



**NOTE**: The ASUS Wireless Router can support up to 253 IP addresses for your network.

### To set up the DHCP server:

- 1. Click **Advanced Setting** from the navigation menu at the left side of your screen.
- 2. Under the **LAN** menu, click **DHCP Server**.

LAN - DHCP Server				
RT-N56U supports up to 253 IP addresses for your local network. The IP address of a local machine can be assigned manually by the network administrator or obtained automatically from RT-N56U if the DHCP server is enabled.				
Enable the DHCP Server?	⊙ Yes ○ No			
RT-N56U's Domain Name:				
IP Pool Starting Address:	192.168.1.2			
IP Pool Ending Address:	192.168.1.254			
Lease Time:	86400			
Default Gateway:				

- 3. In the **Enable the DHCP Server?** field, tick **Yes**.
- 4. In the **IP Pool Starting Address** field, key in the starting IP address.
- 5. In the **IP Pool Ending Address** field, key in the ending IP address.
- 6. In the **Lease Time** field, key in the time that the IP addresses expire and the wireless router automatically assigns new IP Addresses for the network clients.



#### IMPORTANT!

- For the IP Pool Starting and Ending IP addresses, we recommend that you use:
  - **IP address**: 192.168.1.xxx (xxx can be any number between 2 and 254)
- IP Pool Starting Address should not be greater than the IP Pool Ending Address.

### **Upgrading the firmware**



**NOTE**: Download the latest firmware from the ASUS website at <a href="http://www.asus.com">http://www.asus.com</a>

### To upgrade the firmware:

- 1. Click **Advanced Setting** from the navigation menu at the left side of your screen.
- 2. Under the **Administration** menu, click **Firmware Upgrade**.
- 3. In the **New Firmware File** field, click **Browse** to locate the new firmware on your computer.
- 4. Click **Upload**. The uploading process takes about three minutes.

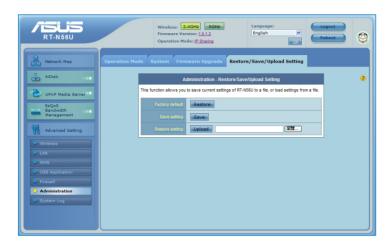


**NOTE**: If the upgrade process fails, the wireless router automatically enters the rescue mode and the power LED indicator at the front panel flashes slowly. To recover or restore the system, use the Firmware Restoration utility.

### **Restoring/Saving/Uploading settings**

### To restore/save/upload the settings:

1. Click **Advanced Setting** from the navigation menu at the left side of your screen.



- 2. Under the Administration menu, click Restore/Save/Upload Setting.
- 3. Select the tasks that you want to do:
  - To restore to the default factory settings, click **Restore**, and click **OK** in the confirmation message.
  - To save the current system settings, click Save, and click Save in the file download window to save the system file in your preferred path.
  - To restore previous system settings, click **Browse** to locate the system file that you want to restore, then click **Upload**.

# Sharing files from a USB storage device

### Creating a user account

You need to create user accounts before you can share the files or data in the USB storage device.

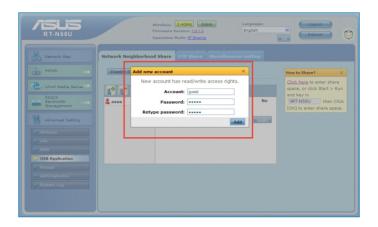
#### To create a user account:

1. Click **Advanced Setting** > **USB Application** from the navigation menu at the left side of your screen.



- 2. Click **Share with account**, and click **OK** to enable the sharing feature.
- 3. Click the Add account icon **2**.

4. In the **Account** and **Password** fields, key in the name and password of the client/computer in your network. Retype the password to confirm. Click **Add** to add the account to the list



#### **Assigning access rights**

# To assign access rights:

- 1. Click **Advanced Setting** > **USB Application** from the navigation menu at the left side of your screen.
- 2. Select the account that you want to assign access rights to.



- 3. From the list of file folders, select the type of access rights that you want to assign for specific file folders:
  - R/W: Select this option to assign read/write access for a specific file folder.
  - **R**: Select this option to assign read only access for a specific file folder.
  - **No**: Select this option if you do not want to share a specific file folder.
- 4. Click **Apply** to apply the changes.
- 5. From the **Miscellaneous setting** tab, set the Work Group to **WORKGROUP** to enable all computers within **WORKGROUP** to access the wireless router's USB storage device.
- Launch My Network Place from a computer connected to the wireless router. Click view work group computers to view the wireless router in the Workgroup category. All files on the USB storage device are now shared to computers in your network.

# Sharing files via the FTP server

The ASUS Wireless Router enables you to share files from your USB storage device via the FTP server with computers in LAN or through the Internet.



**IMPORTANT!** To use this feature, you need to insert a USB storage device, such as a USB hard disk or USB flash drive, to the USB2.0 port on the rear panel of your wireless router. Ensure that the USB storage device is formatted and partitioned properly. Refer to the ASUS website at <a href="http://www.asus.com">http://www.asus.com</a> for the HD file system support table.



**NOTE**: Ensure that you safely remove the USB disk. Incorrect removal of the USB disk may cause data corruption.

#### To share files via the FTP server:

1. Ensure that you have set up your FTP server through AiDisk.



**NOTE**: For more details, refer to the section **Using AiDisk for an FTP Server and Network Neighborhood setup** in this user manual.

- 2. Enable the DDNS service for FTP server access. To do this, follow these steps:
  - a. From the navigation menu, click Advanced > WAN > DDNS tab.
  - b. In the Enable the DDNS Client? field, tick Yes.
  - c. Key in your **User Name or E-mail Address** and **Password or DDNS key**.
  - d. Key in your **Host name**. The format should be **xxx.asuscomm.com**, where xxx is your host name.
  - e. When done, click Apply.
- 3. From the navigation menu, click **Advanced Setting** > **USB Application** > **FTP Share** tab and select the account that you want to assign access rights to.



- 4. From the list of files/folders, select the type of access rights that you want to assign for specific files/folders:
  - R/W: Select this option to assign read/write access for a specific file/folder.
  - **W**: Select this option to assign write only access for a specific file/folder.
  - **R**: Select this option to assign read only access for a specific file/folder.
  - No: Select this option if you do not want to share a specific file/folder.
- 5. Click **Apply** to apply the changes.
- 6. To access the FTP server, key in the ftp link **ftp://<hostname>.asuscomm.com** and your user name and password on a web browser or a third-party FTP utility.

# Setting up your network printer

Use the Network Printer Setup utility to set up a USB printer on your wireless router and allow network clients to access the USB printer.



#### NOTES:

- To check if your USB printer is compatible with your ASUS wireless router, refer to the Plug-n-Share Disk Support List at http://event.asus.com/networks/disksupport
- The wireless router's printer server function is not supported on Windows® 2000.

# To set up your USB Printer:

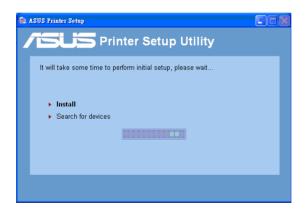
1. Run the ASUS Wireless Utilities from the support CD, then click **Run Network Printer Setup Program**.



2. Follow the onscreen instructions to set up your hardware, then click **Next**.



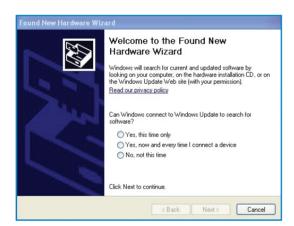
3. Wait for a few minutes for the initial setup to finish. Click **Next**.



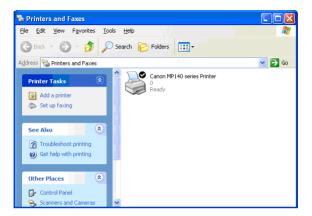
4. Click **Finish** to complete the installation.



5. Follow the Windows® OS instructions to install the printer driver.



6. After the printer's driver installation is completed, network clients can now use the printer.



# 4 Using the utilities



#### **NOTES:**

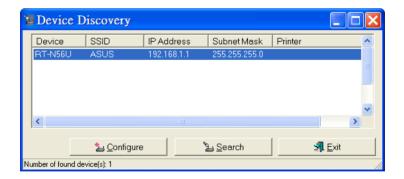
- Install the wireless router's utilities from the bundled support CD.
- If Autorun is disabled, run **setup.exe** from the root directory of the support CD.

# **Device Discovery**

Device Discovery is an ASUS WLAN utility that detects an ASUS wireless router device, and enables you to configure the device.

### To launch the Device Discovery utility:

From your computer's desktop, click
 Start > All Programs > ASUS Utility > RT-N56U Wireless
 Router > Device Discovery.





**NOTE:** When you set the router to Access Point mode, you need to use Device Discovery to get the router's IP address.

# **Firmware Restoration**

Firmware Restoration is used on an ASUS Wireless Router that failed during its firmware upgrading process. It uploads the firmware that you specify. The process takes about three to four minutes.



**IMPORTANT:** Launch the rescue mode before using the Firmware Restoration utility.

# To launch the rescue mode and use the Firmware Restoration utility:

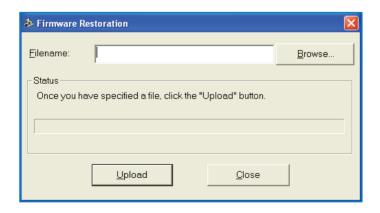
- 1. Unplug the wireless router from the power source.
- 2. Hold the Reset button at the rear panel and simultaneously re-plug the wireless router into the power source. Release the Reset button when the Power LED at the front panel flashes slowly, which indicates that the wireless router is in the rescue mode.
- 3. Use the following to set up your TCP/IP settings:

IP address: 192.168.1.x

**Subnet mask**: 255.255.255.0

4. From your computer's desktop, click

Start > All Programs > ASUS Utility RT-N56U Wireless Router > Firmware Restoration



5. Specify a firmware file, then click **Upload**.



**NOTE**: This is not a firmware upgrade utility and cannot be used on a working ASUS Wireless Router. Normal firmware upgrades must be done through the web interface. Refer to **Chapter 3: Configuring via the web GUI** for more details.

### **Download Master**

Download Master is a utility that allows you to organize your HTTP, FTP, and BT (BitTorrent) download tasks.

# **Using the Download Master**



**NOTE**: To use this feature, you need to plug a USB storage device, such as a USB hard disk or USB flash drive, to the USB 2.0 port on the rear panel of your wireless router. Ensure that the USB storage device is formatted and partitioned properly. Refer to the ASUS website at <a href="http://www.asus.com">http://www.asus.com</a> for the HD file system support table.

#### To use the Download Master:

- Launch the Download Master from Start > All Programs > ASUS Utility > RT-N56U Wireless Router > Download Master.
- 2. Click **File** > **Connect** to connect to the wireless router.



3. Follow the instructions below to organize the download tasks that you want to perform.

#### **HTTP** download

To perform an HTTP download, do any of the following:

- Right-click the download link on the web page and select **Download using** ASUS **Download**
- Right-click the download link on the web page and select **Properties**. Copy the download Address (URL).





#### NOTES:

- If you select **Download using ASUS Download**, you can see the download task is added to the **Transfer** list. The blue bars indicate the progress rate of the download tasks.
- If you copy the download address, click the Assign button in the utility. Paste the address into Getting File From box, select HTTP from Options, and click the Download button to start.
- Ensure that you safely remove the USB disk. Incorrect removal of the USB disk may cause data corruption.

#### FTP download

Click the **Assign** button of the Download Master and select **FTP** in the **Options** field. Key in the FTP site address, Port number, User Name, Password. Click **Download** to start.

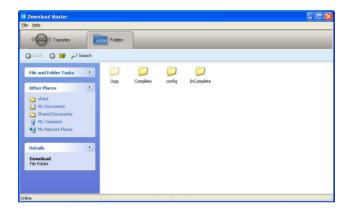


#### BT download

Save the BT seed on your computer. Click the **Assign** button of the Download Master and select **BT** in the **Options** field. Click **Browser** to locate the seed file and click Download to start.



3. Click the **Folder** button to view the download file. Open the **Complete** folder to view or copy the finished files to your local hard disk. The incomplete tasks are kept in the **InComplete** folder.



# 5 Troubleshooting



**NOTE**: If you encounter problems that are not mentioned in this chapter, contact the ASUS Technical Support.

# **Troubleshooting**

### I cannot access a web browser for configuring the router.

- Delete the cookies and files in your web browser. To do this, follow these steps:
  - 1. Launch your web browser, then click **Tools** > **Internet Options...**
  - 2. Under Temporary Internet files, click Delete Cookies... and Delete Files...



**NOTE**: The commands for deleting cookies and files vary with the web browser.

• Disable the proxy server settings, cancel the dial-up connection, and set the TCP/IP settings to obtain IP addresses automatically. For more details, refer to the section **Before you proceed** in this user manual.

The client cannot establish a wireless connection with the router.

#### **Out of Range:**

- Put the router closer to the wireless client.
- Try to change the channel settings.

#### **Authentication:**

- Use wired connection to connect to the router.
- Check the wireless security settings.
- Press the Reset button at the rear panel for more than five seconds.

#### Cannot find the router:

- Press the Reset button at the rear panel for more than five seconds.
- Check the setting in the wireless adapter such as SSID and encryption settings.

#### Cannot access the Internet via wireless LAN adapter.

- Move the router closer to the wireless client.
- Check whether the wireless adapter is connected to the correct wireless router.
- Check whether the wireless channel in use conforms to the channels available in your country/area.
- Check the encryption settings.
- Check if the ADSL or Cable connection is correct.
- Retry using another Ethernet cable.

#### Internet is not accessible.

- Check the status indicators on the ADSL modem and the wireless router
- Check if the WAN LED on the wireless router is ON. If the LED is not ON, change the cable and try again.

# When ADSL Modem "Link" light is ON (not blinking), this means Internet Access is possible.

- Restart your computer.
- Refer to the Quick Start Guide of the wireless router and reconfigure the settings.
- Check if the WAN LED on the wireless router is ON.
- Check the wireless encryption settings.
- Check if the computer can get the IP address (via both wired network and wireless network).
- Ensure that your web browser is configured to use the local LAN, and is not configured to use a proxy server.

# If the ADSL "LINK" light blinks continuously or stays off, Internet access is not possible - the Router is unable to establish a connection with the ADSL network.

- Ensure that all your cables are all properly connected .
- Disconnect the power cord from the ADSL or cable modem, wait a few minutes, then reconnect the cord.
- If the ADSL light continues to blink or stays OFF, contact your ADSL service provider.

### Network name or encryption keys are forgotten.

- Try setting up the wired connection and configuring the wireless encryption again.
- Press the Reset button at the rear panel of the wireless router for more than five seconds.

### How to restore the system to its default settings?

- Press the Reset button at the rear panel of the wireless router for more than five seconds.
- Refer to the section **Restoring/Saving/Uploading settings** in Chapter 3 of this user manual.

The following are the factory default settings:

**User Name**: admin **Password**: admin

**Enable DHCP**: Yes (if WAN cable is plugged in)

**IP address**: 192.168.1.1

**Domain Name**: (Blank)

Subnet Mask: 255.255.255.0

**DNS Server 1**: 192.168.1.1

**DNS Server 2**: (Blank) **SSID**: ASUS

# **ASUS DDNS Service**

RT-N56U supports the ASUS DDNS service. When exchanging devices at the service center, if you have registered the ASUS DDNS service and want to keep the original domain name, data transfer is a must. Visit your local service center for more information



#### NOTES:

- If there is no activity in the domain such as reconfiguring the router or accessing the registered domain name - within 90 days, the system automatically deletes the registered information.
- If you encounter any problem or difficulty in using your device, contact the service center.

# **Frequently Asked Questions (FAQs)**

# 1. Will the registered information be lost or registered by others?

If you have not updated the registered information in 90 days, the system automatically deletes the registered information and the domain name may be registered by others.

# 2. I did not register the ASUS DDNS for the router I bought six months ago. Can I still register it?

Yes, you can still register the ASUS DDNS service for your router. The DDNS service is embedded in your router, so you can register the ASUS DDNS service anytime. Before registering, click **Query** to check if the hostname has been registered or not. If not, the system registers the hostname automatically.

# 3. I have registered a domain name before and it has been working well until my friends told me that they could not access my domain name.

Check the following:

- 1. The internet is working well.
- 2. The DNS server is working well.
- 3. The last time you updated the domain name.

If there are still problems in accessing your domain name, contact the service center.

# 4. Can I register two domain names to separately access my http and ftp servers?

No, you cannot. You can only register one domain name for one router. Use port mapping to implement security in the network.

# 5. After restarting the router, why is it that I see different WAN IPs in MS DOS and in the router configuration page?

This is normal. The interval time between the ISP DNS server and ASUS DDNS results in different WAN IPs in MS DOS and in the router configuration page. Different ISPs may have different interval time for IP updating.

# 6. Is the ASUS DDNS service free, or is it just a trial version?

The ASUS DDNS service is a free and embedded service in some ASUS routers. Check your ASUS router if it supports the ASUS DDNS service.

# **Appendices**

# **Notices**

# **ASUS Recycling/Takeback Services**

ASUS recycling and takeback programs come from our commitment to the highest standards for protecting our environment. We believe in providing solutions for you to be able to responsibly recycle our products, batteries, other components, as well as the packaging materials. Please go to <a href="http://csr.asus.com/english/Takeback.htm">http://csr.asus.com/english/Takeback.htm</a> for the detailed recycling information in different regions.

#### **REACH**

Complying with the REACH (Registration, Evaluation, Authorisation, and Restriction of Chemicals) regulatory framework, we published the chemical substances in our products at ASUS REACH website at

http://csr.asus.com/english/index.aspx

# **Federal Communications Commission Statement**

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

- This device may not cause harmful interference.
- This device must accept any interference received, including interference that may cause undesired operation.

This equipment has been tested and found to comply with the limits for a class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable

protection against harmful interference in a residential installation.

This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for



**IMPORTANT!** This device within the 5.15 ~ 5.25 GHz is restricted to indoor operations to reduce any potential for harmful interference to co-channel MSS operations.



**Caution**: Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

#### **Prohibition of Co-location**

This device and its antenna(s) must not be co-located or operating in conjunction with any other antenna or transmitter

# **Safety Information**

To maintain compliance with FCC's RF exposure guidelines, this equipment should be installed and operated with minimum distance 20cm between the radiator and your body. Use on the supplied antenna.

# **Declaration of Conformity for R&TTE directive 1999/5/ EC**

Essential requirements – Article 3

Protection requirements for health and safety – Article 3.1a Testing for electric safety according to EN 60950-1 has been conducted. These are considered relevant and sufficient.

Protection requirements for electromagnetic compatibility – Article 3.1b

Testing for electromagnetic compatibility according to EN 301 489-1 and EN 301 489-17 has been conducted. These are considered relevant and sufficient.

Effective use of the radio spectrum – Article 3.2

Testing for radio test suites according to EN 300 328- 2 has been conducted. These are considered relevant and sufficient.

# **CE Mark Warning**

This is a Class B product, in a domestic environment, this product may cause radio interference, in which case the user may be required to take adequate measures.

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Online contact www.asus.de/sales

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Fax +492102959911
Online support support.asus.com

<sup>\*</sup> EUR 0.14/minute from a German fixed landline; EUR 0.42/minute from a mobile phone.

# **Networks Global Hotline Information**

Area		Support Languages	Working Hour	Working Day
Australia	1300-2787-88	English	9:00-18:00	Mon. to Fri.
Austria	0043-820240513	German	9:00-18:00	Mon. to Fri.
Belgium	0032-78150231	Dutch /French	9:00-17:00	Mon. to Fri.
China	800-820-6655; 021-34074610	Simplified Chinese	9:00-18:00	Mon. to Sun.
Denmark	0045-3832-2943	Denish/English	9:00-17:00	Mon. to Fri.
Finland	00358-9693-7969	Finnish/English/ Swedish	10:00-18:00	Mon. to Fri.
France	0033-170949400	France	9:00-17:45	Mon. to Fri.
Greece	00800-44-14-20-44	Greek	9:00-13:00; 14:00-18:00	Mon. to Fri.
Hong Kong	3582-4770	Cantonese/ Chinese/ English	10:00-20:00	Mon. to Fri.
			10:00-17:00	Sat.
Ireland	0035-31890719918	English	9:00-17:00	Mon. to Fri.
lanan	n 0800-123-2787 Japanese	lananoso	9:00-18:00	Mon. to Fri.
Japan		заранезе	9:00-17:00	Sat. to Sun.
Malaysia	+603 2148 0827 (Check Repair Detail Status Only) +603-6279-5077	Bahasa Melayu/ English	10:00-19:00	Mon. to Fri.
Netherlands / Luxembourg	0031-591-570290	Dutch / English	9:00-17:00	Mon. to Fri.
New Zealand	0800-278-788 / 0800-278-778	English	9:00-17:00	Mon. to Fri.
Norway	0047-2316-2682	Norwegian /English	9:00-17:00	Mon. to Fri.
Philippine	+632-636 8504; 180014410573	English	9:00-18:00	Mon. to Fri.
Poland	00225-718-033 00225-718-040	Polish	9:00-17:00 8:30-17:30	Mon. to Fri.
Portugal	707-500-310	Portuguese	9:00-17:00	Mon. to Fri.

# **Networks Global Hotline Information**

Avan	Hotling Number	Support	Working	Working
Area		Laṅġuages	Hour	Day
Russia	+8-800-100-ASUS; +7-495-231-1999	Russian/ English	9:00-18:00	Mon. to Fri.
Singapore	+65-6720-3835 (Check Repair Detail Status Only) -66221701	English	11:00-19:00	Mon. to Fri.
Slovak	00421-232-162-621	Czech	8:00-17:00	Mon. to Fri.
Spain	902-88-96-88	Spanish	9:00-18:00	Mon. to Fri.
Sweden	0046-8587-6940	Swedish/ English	9:00-17:00	Mon. to Fri.
	0041-848111010	German/French	9:00-18:00	Mon. to Fri.
Switzerland	0041-848111014	French	9:00-17:45	Mon. to Fri.
	0041-848111012	Italian	9:00-17:00	Mon. to Fri.
Taiwan	0800-093-456; 02-81439000	Traditional Chinese	9:00-12:00; 13:30-18:00	Mon. to Fri.
Thailand	+662-679-8367 -70; 001 800 852 5201	Thai/English	9:00-18:00	Mon. to Fri.
Turkey	+90-216-524-3000	Turkish	09:00-18:00	Mon. to Fri
United Kingdom	0044-870-1208340; 0035-31890719918	English	9:00-17:00	Mon. to Fri.
USA/Canada	1-812-282-2787	English	8:30- 12:00am EST (5:30am- 9:00pm PST)	Mon. to Fri.
33/4 Culludu	. 5.2 202 2707	English	9:00am- 6:00pm EST (6:00am- 3:00pm PST)	Sat. to Sun.



**NOTE**: For more information, visit the ASUS support site at: <a href="http://support.asus.com">http://support.asus.com</a>

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EEE Yönetmeliğine Uygundur.